

Notice of Allowability

Application No.

09/883,266

Examiner

Tatyana Zalukaeva

Applicant(s)

MATSUMOTO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/18/2004.
2. ☒ The allowed claim(s) is/are 16-22, 26-29 and 45-48.
3. ☒ The drawings filed on 09/19/04 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT/COMMENT/REASONS FOR ALLOWANCE

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Davis, esq., on February 4, 2005.

The application has been amended as follows:

Cancel Claims 23-25 and 30-44.

Allowable Claims

2. Claims 16-22, 26-29, 45-48 are allowed over the prior art of record.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance: Fujimaru et al (U.S. 6,444,744B1) is the closest prior art of record.

Fujimaru discloses a water absorbent resin and a method of making such resin. One of the possible options to produce a resin is polymerizing a monomer component containing a major proportion of acrylic acid and/or or salt which has a content of hydroquinone or benzoquinone less than 0.20 ppm. (abstract). According to Fujimaru the acrylic acid used in his process is one that industrially produced by a propylene gas

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phase oxidation process (col. 4, lines 7-11, col. 9, lines 19-40). In a finally purified acrylic acid the amount of hydroquinone is 0.5-1ppm (col. 9, lines 50-56). One of the advantages of Fujimaru is that the water absorbent rein is produced from acrylic acid having reduced hydroquinone content, of at most 0.2 ppm (paragraph bridging col. 5 and 6, col. 5, lines 12-17), a hydrophilic water absorbent rein is produced by aqueous solution polymerization (col. 6, lines 18-21); a water absorbent rein is at least partially neutralized (col. 6, lines 31-33); a resin of which the surface neighborhood of the particles are crosslinked is taught by Fujimaru in col. 6, lines 67-67. Fujimaru further teaches that examples of his rein include polyacrylic acids or neutralized polyacrylic acids, neutralized by 50-95 mol. % (col.11, lines 20-30). Neutralization may be carried out before, during or after polymerization (col. 3, lines 35-40). The alkaline substances used for neutralization include Na, Li, K hydroxides (col. 12, lines 10-15). The polymerization temperature is preferably within the range of 20-90°C. (col. 13, lines 33-35). The water absorbent capacity of the resin according to Fujimaru is preferably at least 30 g/g under a heavy load of 50 g/cm² (col. 20, lines 25-30).

Fujimaru fails to disclose, suggest or motivate the following:

- Reducing protoanemonin content to not more than 10 ppm (no mentioning about protoanemonin at all)
- Neutralization step in the presence of oxygen (oxygen is totally absent in Fujimaru)

Another prior art reference of interest has been revealed by the Examiner as of the date of the present communication, U. S. Patent 5,746,892 to Bauer, which is concerned with

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preparing a pure grade acrylic acid for future polymerization. Bauer is concerned entirely in removing aldehyde impurities, and says or suggests nothing to reduce the protoanemonin content. Nor does he disclose the polymerization step with further neutralization of the resulting polymer in the presence of oxygen.

No other prior art that anticipates or suggests fairly the instantly claimed process has been located as of the date of this office action. Upon further search no prior art patents have been located that could present a potential double patenting rejection.

Therefore, claims 16-22, 26-29, 45-48 are allowed.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva
Primary Examiner
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A handwritten signature in black ink, appearing to read 'Tatyana', with a long, sweeping horizontal stroke extending to the right.

February 4, 2005